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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/032,913 | 12/29/2001 | Motoki Kato | 450100-4414.1 | 9795 |

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EXAMINER

AN, SHAWN S

ART UNIT

PAPER NUMBER

2613

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/032,913

Applicant(s)

Kato Motoki

Examiner

Shawn An

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Dec 29, 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-29 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on Dec 29, 2001 is: a) ☒ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/061,581.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2 6) ☐ Other: _____

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DETAILED ACTION

Response to Preliminary Amendment

1. As per Applicant's instructions in Paper 3 as filed on 12/29/01, claims 1-17 have been canceled and claims 18-29 have been newly added.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

3. Claims 18-19, 22-24, and 26-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Fukuda (5,949,956).

Regarding claims 18, 23, and 26-27, Fukuda discloses a signal coding apparatus/method, and a signal recording medium, comprising:

coding difficulty calculating means (101) for determining a coding difficulty for each unit time of an input signal;

means for obtaining a reference value of the allocation data amount (301 and 302) interrelated with the coding difficulty of the input signal for the each unit time based on a standardized relationship between coding difficulty and allocation data amount, wherein the standardized relationship is provided when a reference motion picture image sequence is coded by way of variable bit rate coding with a predetermined average bit rate (Col. 6, lines 25-41);

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means for modifying (104+) the reference value of the allocation data amount into an actual allocation data amount;

coding means (107) for generating coded data by coding the input signal for the each unit time according to the actual allocation data amount; and

transmitting the generated coded data (Col. 6, lines 1-3).

Regarding claims 19 and 24, Fukuda discloses means for modifying controlling the actual allocation bit amount, so that a total of a bit amount generated when a signal of a time length which can be recorded on a recording medium is equal to or below a bit amount available in the recording medium for signal recording (Col. 6, lines 56-67 and Col. 7, lines 1-23) as specified.

Regarding claim 7, Fukuda discloses the coding difficulty being determined according to an image characteristic information of the input image (Fig. 2) and coding is carried out with an allocation data amount (102) as specified.

Regarding claim 22, Fukuda discloses input signal being a moving picture image signal, and the coding difficulty (Fig. 2) is determined according to an image characteristic of the input image for each predetermined time and coding is carried out with an allocation data amount (102) reflecting human visual characteristic.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims (20-21), 25, and (28-29) are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuda as applied to claims 18, 23, and 27 above, respectively, and further in view of Chung et al (5,686,962).

Regarding claims 20-21, 25, and 28-29, Fukuda does not specifically disclose the input signal being subjected to a pre-filter processing.

However, Chung et al disclose well known pre-filter processing (Fig. 3, element 33), which includes a low pass filter processing (Col. 5, lines 6-11).

Therefore, it would have been obvious to a person of ordinary skill in the relevant art employing a signal coding apparatus/method, and a signal recording medium as taught by Fukuda to incorporate the well known low pass filter processing as taught by Chung et al so that Fukuda's pre-filter processing includes the low pass filter when suppressing the actual allocation sign amount below the reference value in order to prevent coding deterioration.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- A) Kato (6,167,087), Picture signal encoding method and apparatus and signal recording medium.
- B) Gonzales et al (5,231,484), Motion video compression system with adaptive bit allocation and quantization.
- C) Guillotel et al (5,604,602), Process and device for bite-rate reduction for the recording of images on a video recorder.
- D) Kato (6,363,114 B1), Signal coding method/apparatus, signal recording medium, and signal transmission method.
- E) Suzuki et al (5,642,165), Motion picture encoding method and apparatus.

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7. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawn An whose telephone number (703) 305-0099 and schedule are Tuesday through Friday.

SHAWN S. AN
PATENT EXAMINER



SSA

December 11, 2002